



Pb-free
* Pb Free Part



MSL1

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	Band 25 Duplexer	Date	Nov.1, 2016
Part Number	D6HQ1G962DP35	Ver.3.0cbB	Final

Table 1. Electrical Specification

Item	Condition (MHz)	Specification			Unit	Remarks		
		Min	Typ.	Max				
Tx to ANT	Insertion loss	1850.25~1914.75	-	2.5	3.7	dB(*1)		
		1852.4~1907.6(*2)	-	1.9	2.7	dB(*1)		
		1851.25~1908.75(*3)	-	2.0	3.0	dB(*1)		
	Ripple (any 5MHz)	1850.25~1914.75	-	0.6	2.4	dB		
	VSWR	ANT Tx	1850.25~1914.75	-	1.7	2.1	-	
			1850.25~1914.75	-	1.7	2.1	-	
	Input power	1850.25~1914.75	+29dBm, Ta=+50°C, 5kh, CW			-		
	Absolute attenuation	1559~1563	30	33	-	dB		
		1565.4~1573.4	30	33	-	dB		
		1573.4~1577.5	30	33	-	dB		
		1577.5~1585.4	30	33	-	dB		
		1597.6~1605.9	30	34	-	dB		
		1930.25~1994.75	40	50	-	dB	-10 to +25 °C	
45			50	-	dB	+25 to +85 °C		
2400 ~ 2500		23	36	-	dB			
3700 ~ 3830	28	37	-	dB				
5550 ~ 5745	20	28	-	dB				
ANT to Rx	Insertion loss	1930.25~1994.75	-	2.6	3.5	dB(*1)	-10 to +25 °C	
			-	2.6	3.3	dB(*1)	+25 to +85 °C	
		1932.4~1987.6(*2)	-	2.2	3.2	dB(*1)		
		1931.25~1988.75(*3)	-	2.4	3.4	dB(*1)		
	Ripple (any 5MHz)	1930.25~1994.75	-	0.7	2.5	dB		
	VSWR	ANT Rx	1930.25~1994.75	-	1.7	2.2	-	
			1930.25~1994.75	-	1.8	2.3	-	
	Absolute attenuation	1850.25~1914.75	45	59	-	dB	-10 to +60 °C	
			40	59	-	dB	+60 to +85 °C	
		2400~2500	40	48	-	dB		
3860~3990		40	60	-	dB			
5790~5985	40	65	-	dB				

(*1) Specification of insertion loss excludes loss that comes from the test board.

(*2) The integrated loss over any 3.84MHz(+/- 1.92MHz) channel within the band.

(*3) The integrated loss over any 1.25MHz(+/- 0.625MHz) channel within the band.



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Table 2. Electrical Specification

Item		Condition (MHz)	Specification			Unit	Remarks
			Min	Typ.	Max		
Tx to Rx	Isolation	1850.25~1914.75	54	57	-	dB	-10 to +60°C
			50	57	-	dB	+60 to +85°C
		1852.4~1907.6(*2)	54	57	-	dB	
		1851.25~1908.75(*3)	54	57	-	dB	
		1930.25~1994.75	50	57	-	dB	-10 to +25°C
			53	57	-	dB	+25 to +85°C
		1932.4~1987.6(*2)	50	57	-	dB	-10 to +25°C
			53	57	-	dB	+25 to +85°C
1931.25~1988.75(*3)	50	57	-	dB	-10 to +25°C		
	53	57	-	dB	+25 to +85°C		
Terminating Impedance		Tx port	50			Ω	
		Rx port	50			Ω	
		Ant port	50 // 3.9nH			Ω	
Operating Temperature		-10 to +85			°C		
Maximum DC in all ports		-	-	0	VDC(*4)		
Device size (L max.x W max.x H max.)		1.8 x 1.4 x 0.57			mm		

(*2) The integrated isolation over any 3.84MHz(+/- 1.92MHz) channel within the band.

(*3) The integrated isolation over any 1.25MHz(+/- 0.625MHz) channel within the band.

(*4) DC resistance at Ant and Rx ports might be less than 100 MΩ at operating temperatures.

TYMT recommendation is to put blocking capacitors at Ant and Rx ports.



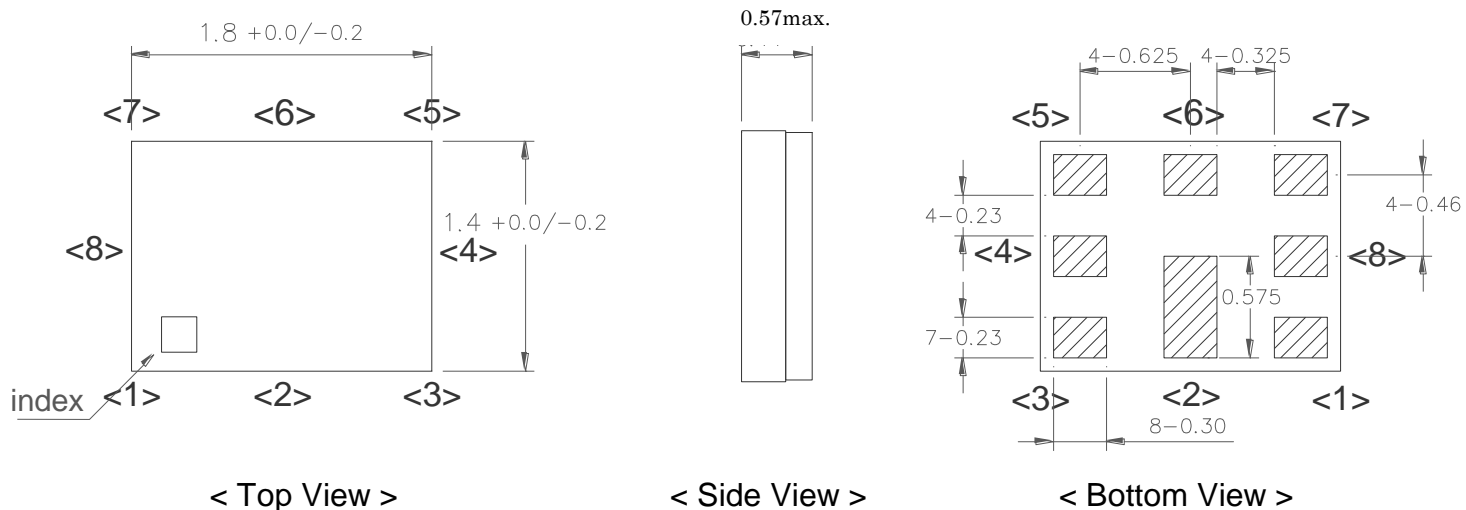
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Dimensions



Unit: mm

Pin assignment

Pin No.	Pin name	Description
1	Rx	Receiver
2	GND	Ground
3	Tx	Transmitter
4	GND	Ground
5	GND	Ground
6	ANT	Antenna
7	GND	Ground
8	GND	Ground

Figure 1. Dimensions and Pin assignment



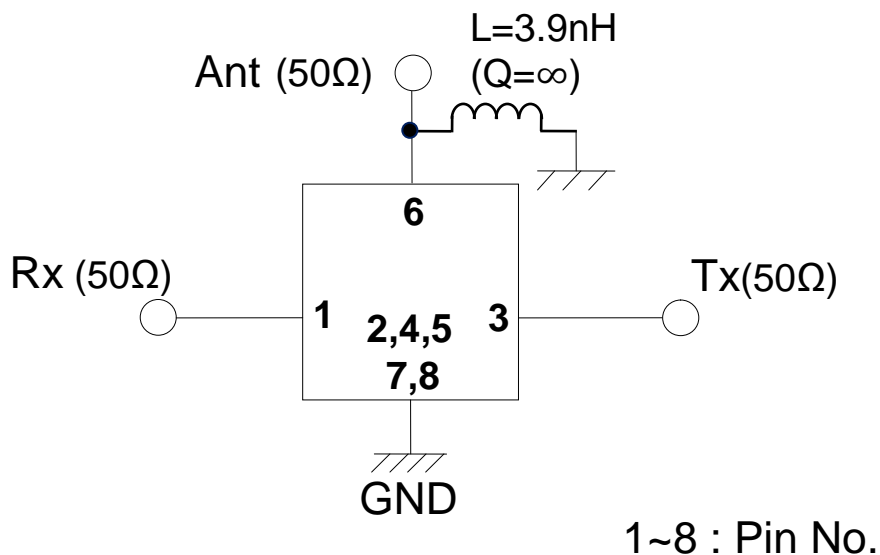
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Evaluation Circuit



Recommended foot print pattern

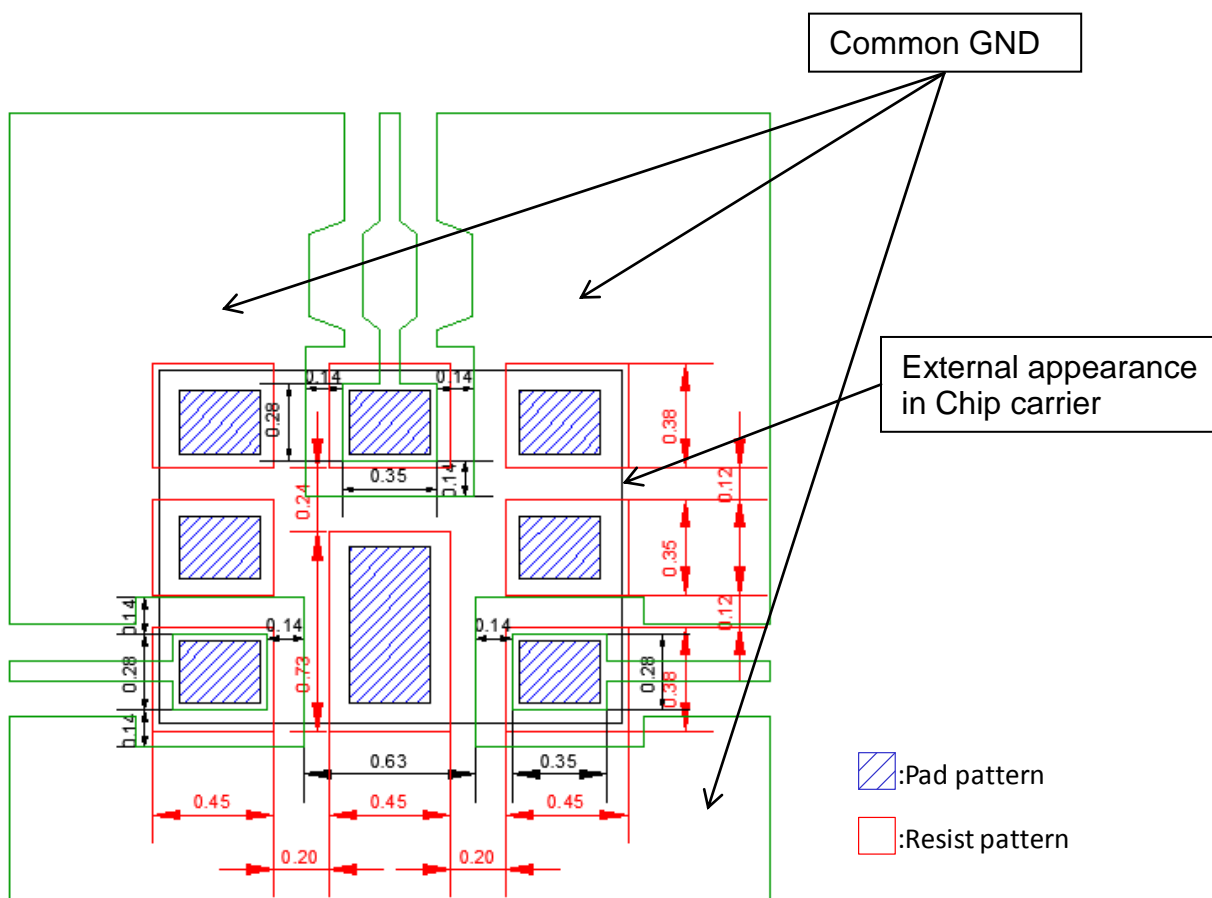


Figure 2. Recommended foot print pattern



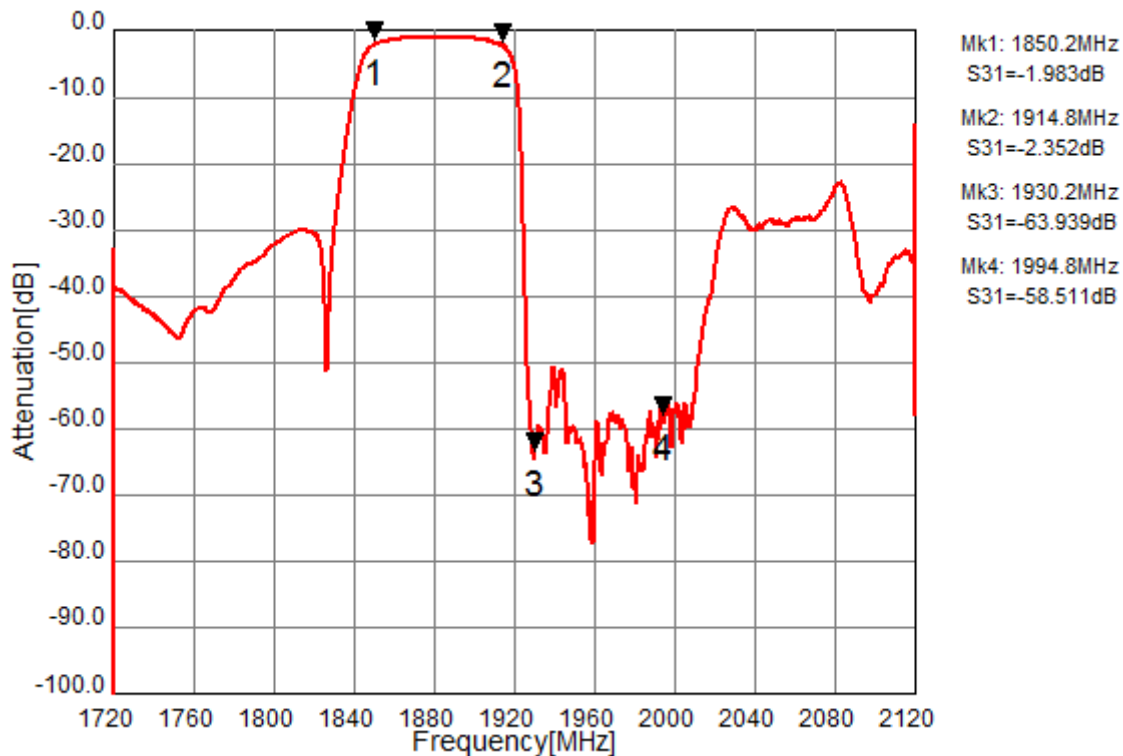
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Tx to Ant



Ant to Rx

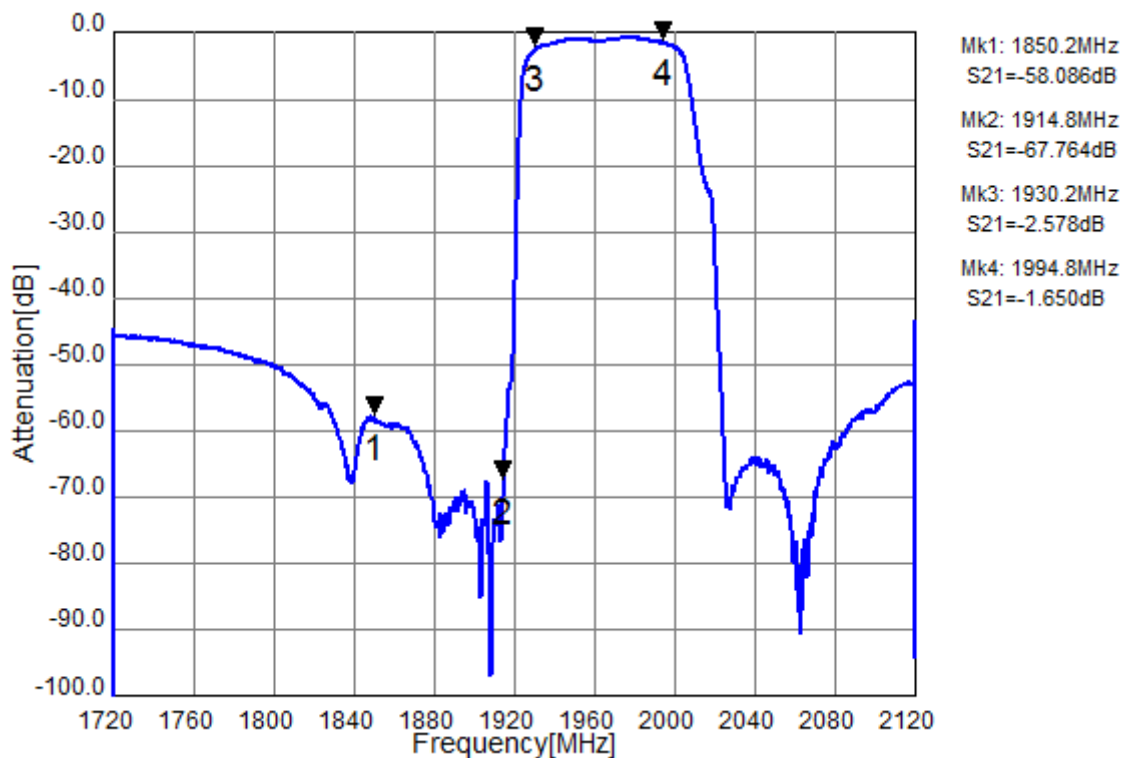


Figure 3-1. Electrical Characteristics

These data **exclude** loss that comes from the test board.



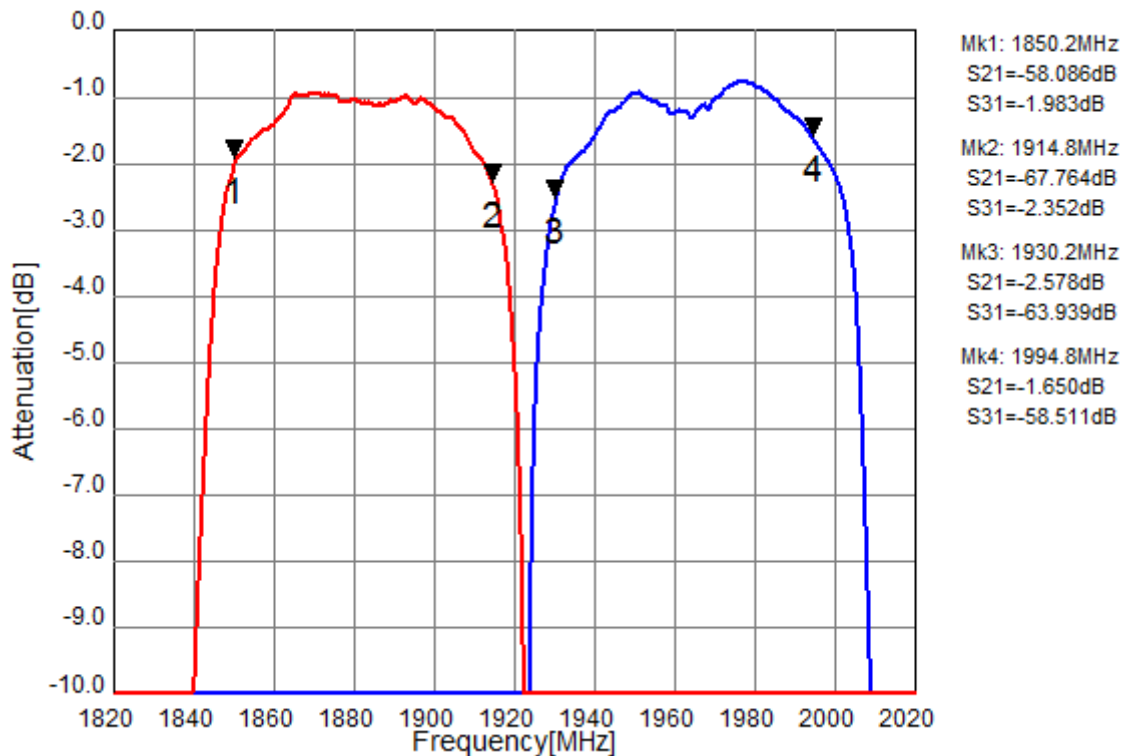
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Tx to Ant, Ant to Rx



Tx to Rx Isolation

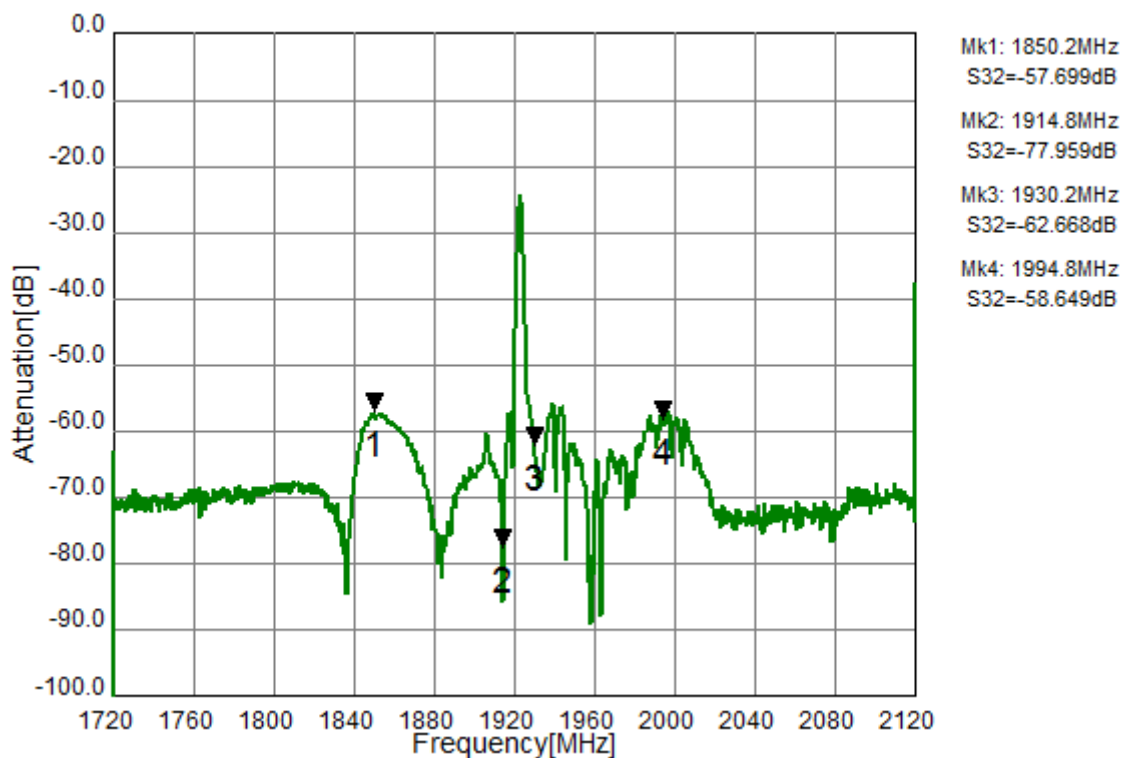


Figure 3-2. Electrical Characteristics

These data **exclude** loss that comes from the test board.

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Tx Port

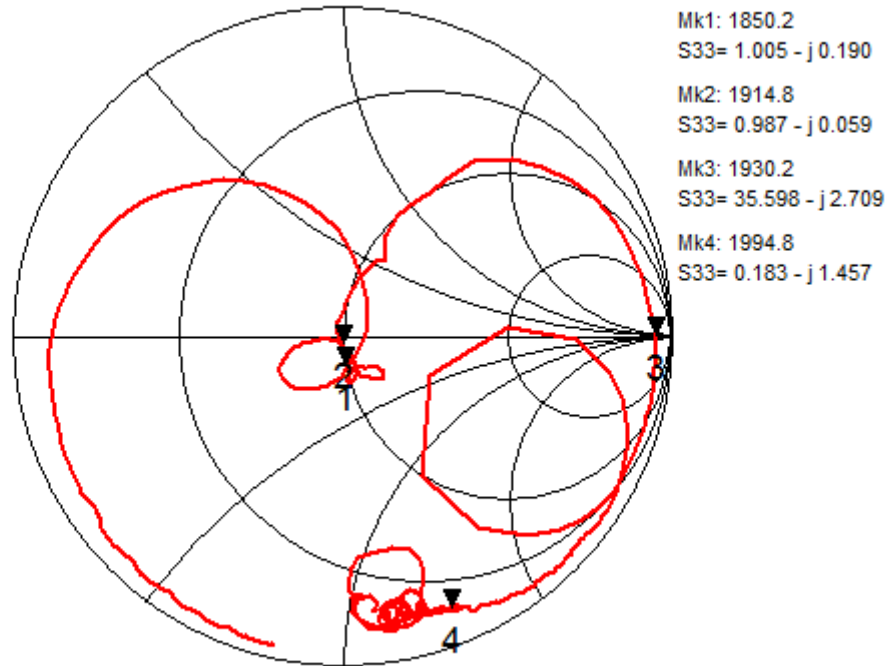
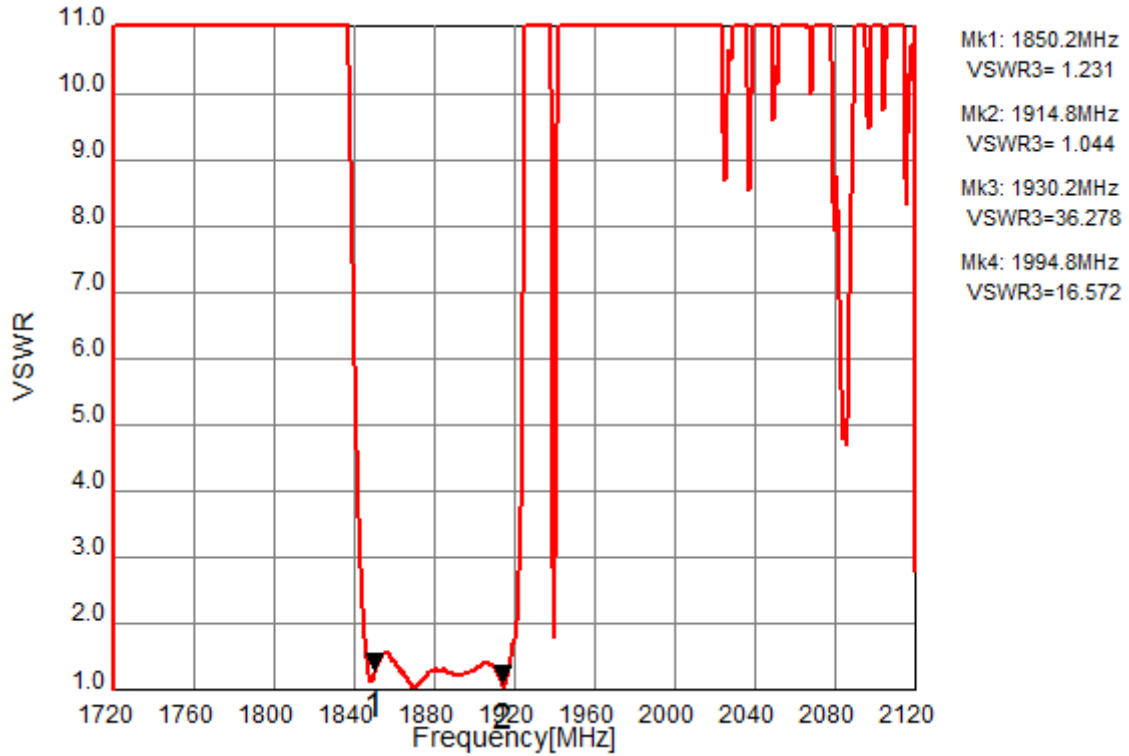


Figure 3-3. Electrical Characteristics



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RxPort

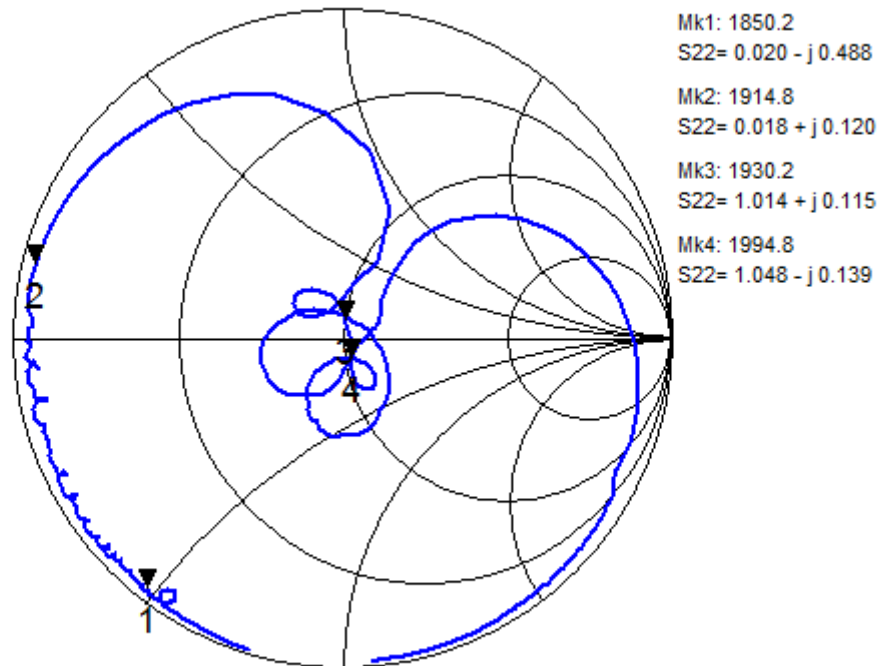
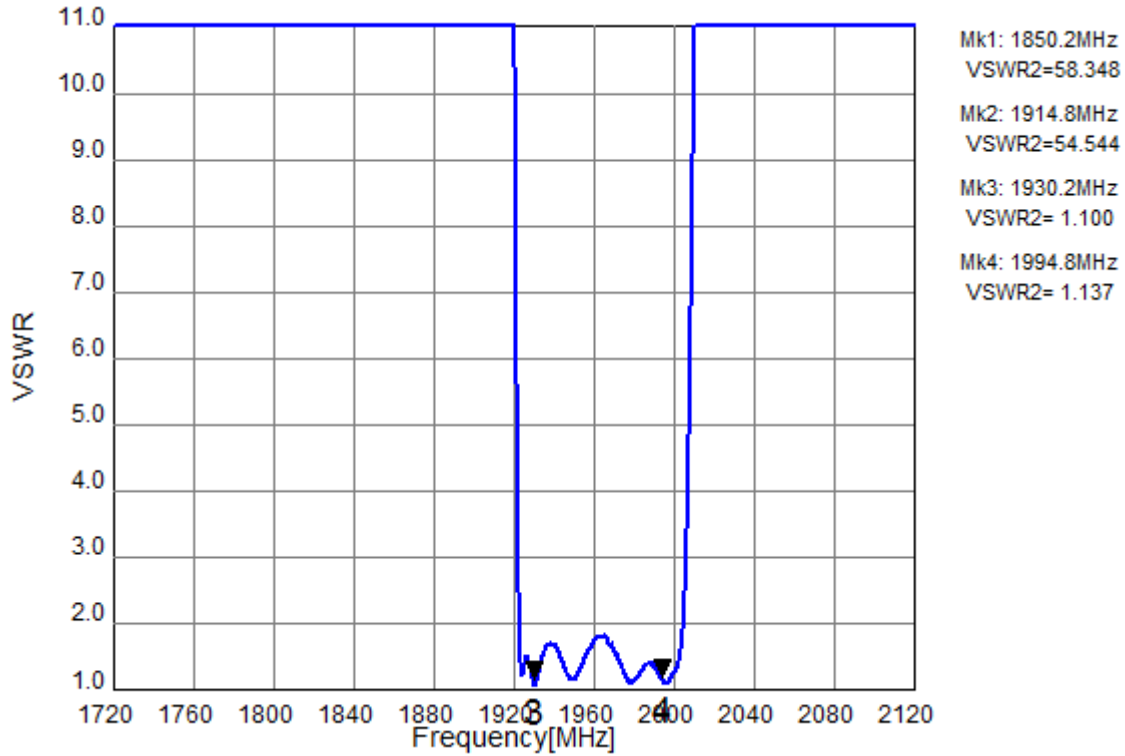


Figure 3-4. Electrical Characteristics



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Ant Port

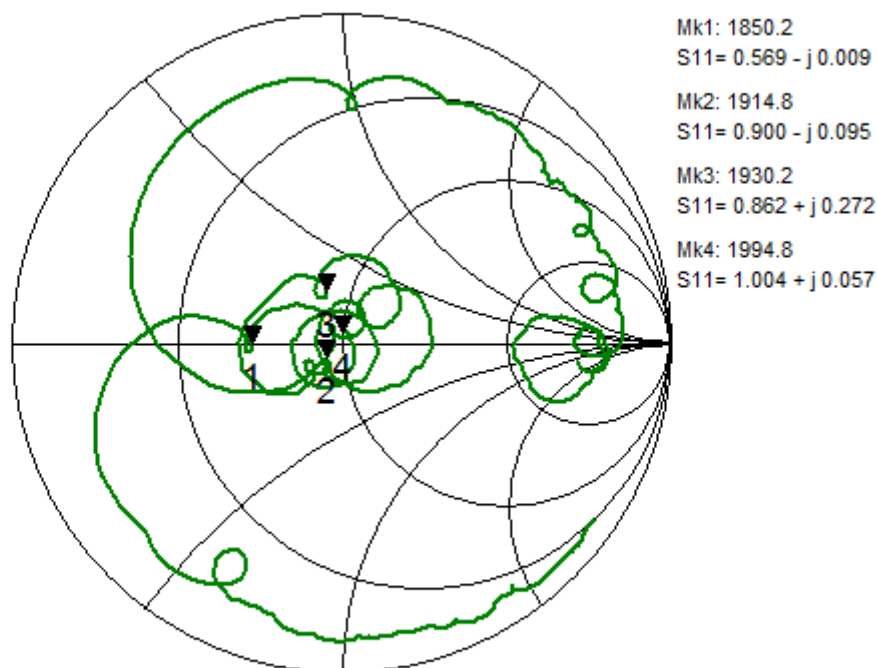
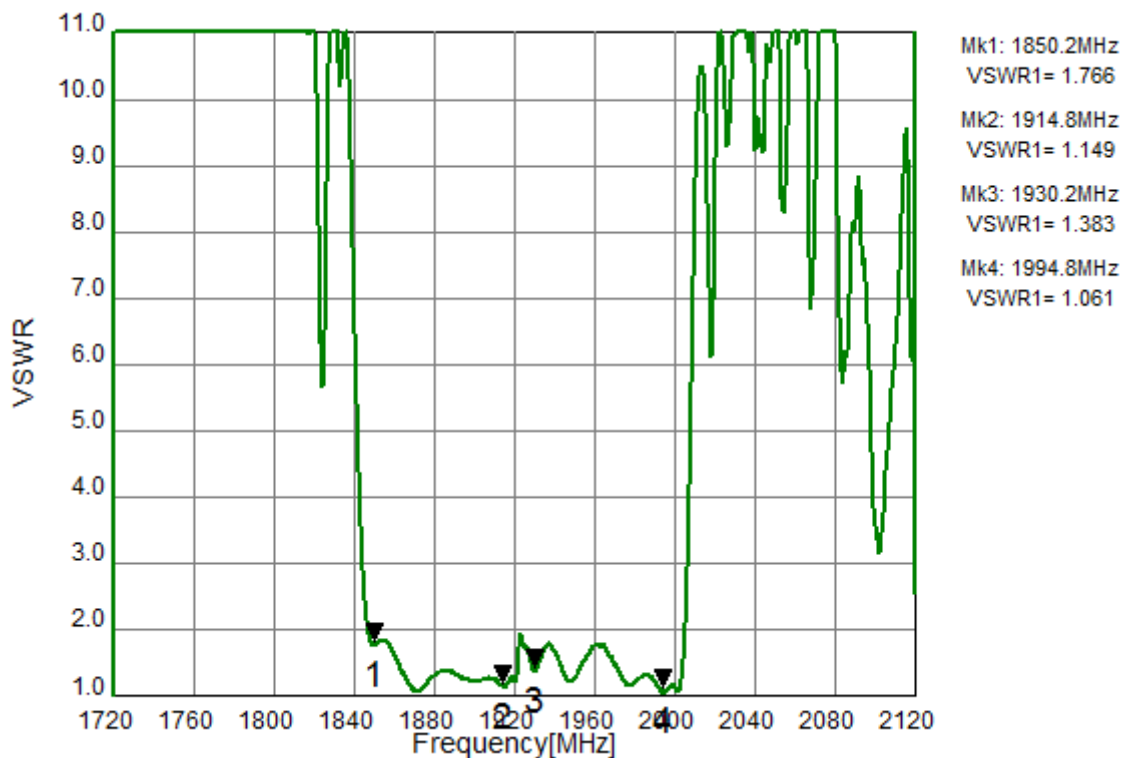


Figure 3-5. Electrical Characteristics



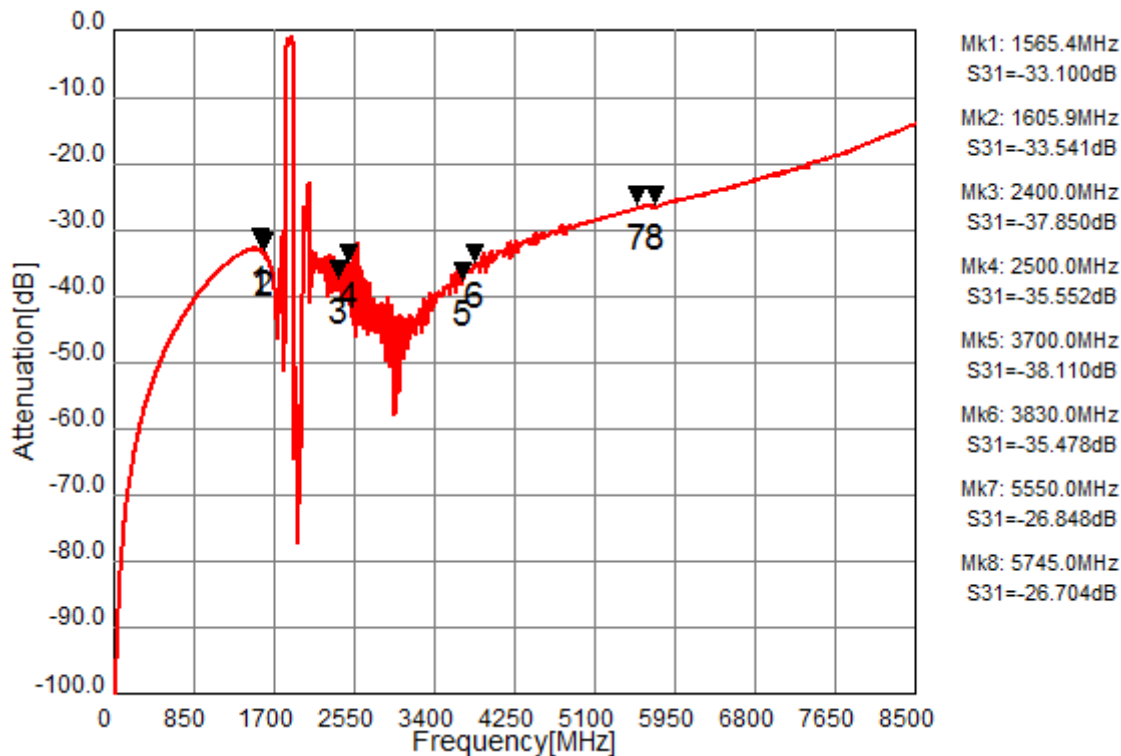
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Tx to Ant (Wide Span)



Ant to Rx (Wide Span)

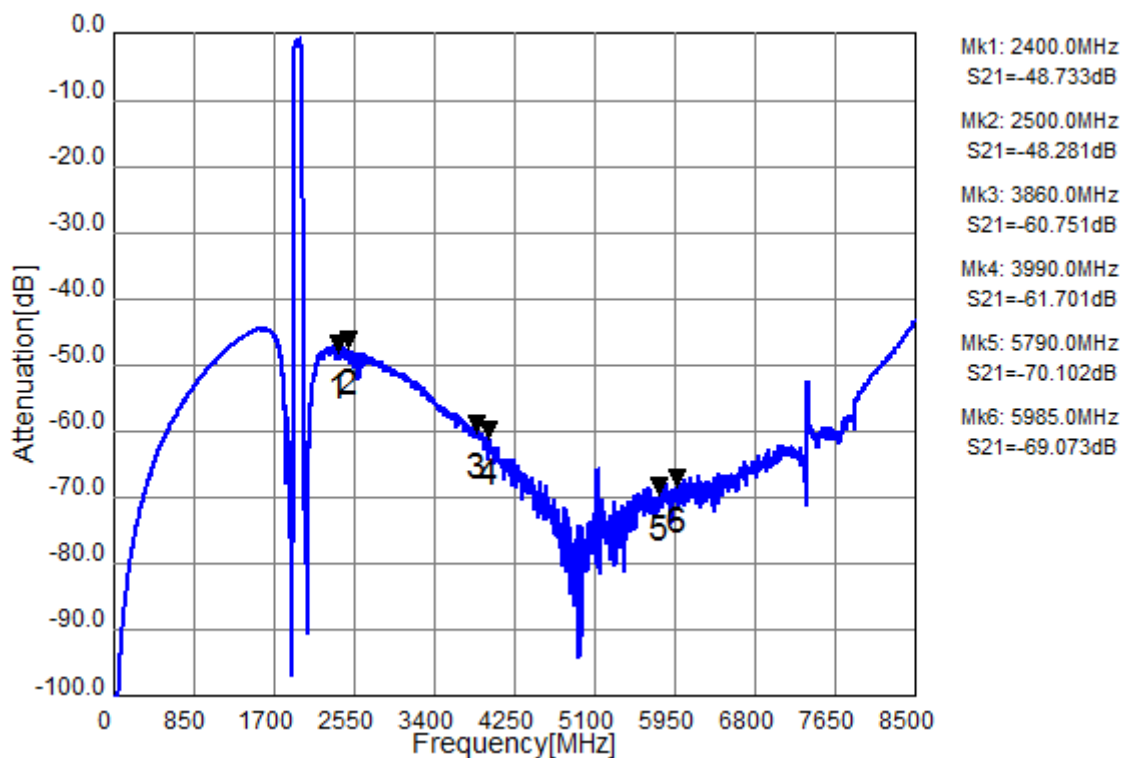


Figure 3-6. Electrical Characteristics



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Ordering Code

Ordering Code	Packing	Reel size	Status
D6HQ1G962DP35-Z	Tape & Reel	3,000 pcs.	MP
D6HQ1G962DP35-ZA	Tape & Reel	less than 3,000 pcs.	MP
D6HQ1G962DP35-Y	Tape & Reel	15,000 pcs.	MP
D6HQ1G962DP35-YA	Tape & Reel	less than 15,000 pcs.	MP
D6HQ1G962DP35-Q	Bulk	few pcs.	MP

*Minimum order quantity (MOQ) is assigned for each inquiry, Please contact to Sales Representatives.

*MP : Mass Production

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